

What Is Claimed Is:

1. A therapeutic apparatus for a patient comprising:
a support frame including a first body supporting portion and a second
5 body supporting portion, the first body supporting portion moveable relative to the
second body supporting portion along a longitudinal axis;
a securing system adapted to secure a patient to the first and second
body supporting portions; and
a linking mechanism adapted to move the first body supporting
10 portion along a path relative to the second body supporting portion, the path
comprising at least one rotational degree of freedom.
2. The therapeutic apparatus of claim 1 wherein the at least one
rotational degree of freedom comprises two rotational degrees of freedom.
- 15 3. The therapeutic apparatus of claim 1 wherein the at least one
rotational degree of freedom comprises three rotational degrees of freedom.
4. The therapeutic apparatus of claim 1 wherein the linkage
20 mechanism is adapted to move the first body supporting portion along the path
comprising at least one rotational degree of freedom simultaneously with movement
of the first body supporting portion relative to the second body supporting portion
along the longitudinal axis.
- 25 5. The therapeutic apparatus of claim 1 wherein the securing
system comprises a first belt attachable to the first body supporting portion and
adapted to secure the patient to the first body supporting portion and a second belt
attachable to the second body supporting portion and adapted to secure the patient to
the second body supporting portion.

6. The therapeutic apparatus of claim 1 comprising a first actuator adapted to move the first body supporting portion relative to the second body supporting portion along a longitudinal axis.

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7. The therapeutic apparatus of claim 6 wherein the first actuator comprises a pneumatic actuator.

8. The therapeutic apparatus of claim 6 wherein the first actuator
10 comprises a double-acting pneumatic cylinder.

9. The therapeutic apparatus of claim 6 comprising a source of compressed air adapted to actuate the first actuator.

10. The therapeutic apparatus of claim 6 comprising a second actuator adapted to move the first body supporting portion along at least one rotational degree of freedom.
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11. The therapeutic apparatus of claim 10 wherein the rotational
20 degree of freedom comprises pitch movement.

12. The therapeutic apparatus of claim 1 comprising:
first and second actuators each adapted to displace a portion of the
therapeutic apparatus; and
25 a single power source connected to the first and second actuators.

13. The therapeutic apparatus of claim 1 comprising:
a first actuator adapted to move the first body supporting portion
relative to the second body supporting portion along a longitudinal axis;

a second actuator adapted to move a head supporting portion of a cervical traction device relative to the first body supporting portion; and
a single power source connected to the first and second actuators.

5 14. The therapeutic apparatus of claim 1 comprising:
a head supporting portion moveable relative to the second body supporting portion; and
a pair of neck wedges adapted to retain a patient's head to the head supporting portion.

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15 15. The therapeutic apparatus of claim 1 comprising at least one locking mechanism adapted to releasably retain the first body supporting portion in a plurality of locations along the path relative to the second body supporting portion.

15 16. The therapeutic apparatus of claim 15 wherein the at least one locking mechanism is continuously adjustable.

17. The therapeutic apparatus of claim 15 comprising at least one locking mechanism for each rotational degree of freedom.

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18. The therapeutic apparatus of claim 1 comprising a sliding mechanism supporting the first body supporting portion.

19. The therapeutic apparatus of claim 1 wherein the linking
25 mechanism comprises a roll mechanism.

20. The therapeutic apparatus of claim 1 wherein the linking mechanism comprises a pitch mechanism.

21. The therapeutic apparatus of claim 1 wherein the linking mechanism comprises a yaw mechanism.

22. The therapeutic apparatus of claim 1 wherein the linking
5 mechanism comprises a cantilever structure pivotally attached to the support frame.

23. The therapeutic apparatus of claim 1 wherein the support frame includes a first adjustable member adapted to adjust the height of the first and second body supporting portions.

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24. The therapeutic apparatus of claim 1 comprising a cervical traction member.

25. The therapeutic apparatus of claim 1 comprising a processor
15 adapted to communicate with the apparatus.

26. The therapeutic apparatus of claim 1 comprising a processor adapted to retain a plurality of traction protocols.

27. The therapeutic apparatus of claim 1 comprising a processor
20 adapted to retain a plurality of cervical and lumbar traction protocols.

28. A method of treating back pain in a patient comprising the steps of:

25 providing a therapeutic apparatus having a support frame with a first body supporting portion and a second body supporting portion;

supporting the patient along the first body supporting portion and the second body supporting portion;

securing the patient to the apparatus with a securing system;

moving the first body supporting portion along a path relative to the second body supporting portion, the path comprising at least one rotational degree of freedom; and

- 5 moving the first body supporting portion relative to the second body supporting portion along a longitudinal axis to affect the distance between the first body supporting portion and the second body supporting portion.

29. The method of claim 28 wherein the step of moving the first body supporting portion along a path comprising at least one rotational degree of freedom occurs simultaneously with moving the first body supporting portion along the longitudinal axis.

30. The method of claim 28 wherein the step of moving the first body supporting portion along a path comprising at least one rotational degree of freedom occurs after the first body supporting portion is moved along the longitudinal axis.

31. The method of claim 28 wherein the step of moving the first body supporting portion along a path comprising at least one rotational degree of freedom occurs before the first body supporting portion is moved along the longitudinal axis.

32. The method of claim 28 comprising securing the patient to the first body supporting structure with a first belt and securing the patient to the second body supporting portion with a second belt.

33. The method of claim 28 comprising releasably retaining the first body supporting portion along one or more locations along the path relative to the second body portion.

34. The method of claim 28 comprising supporting the patient along the first body supporting portion and second body supporting portion in a prone or supine position.

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35. The method of claim 28 wherein the therapeutic apparatus includes a processor, the method comprising programming one or more treatment protocols into the processor.

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36. The method of claim 28 wherein the therapeutic apparatus includes a processor, the method comprising storing one or more treatment protocols into the processor.